

(19)



Europäisches Patentamt  
European Patent Office  
Office européen des brevets



(11) Publication number:

**0 389 223 A3**

(12)

## EUROPEAN PATENT APPLICATION

(21) Application number: **90302933.8**

(51) Int. Cl.<sup>5</sup>: **A61C 7/12**

(22) Date of filing: **19.03.90**

(30) Priority: **20.03.89 US 325755**

(43) Date of publication of application:  
**26.09.90 Bulletin 90/39**

(84) Designated Contracting States:  
**AT BE CH DE ES FR GB IT LI LU NL SE**

(88) Date of deferred publication of the search report:  
**16.01.91 Bulletin 91/03**

(71) Applicant: **JOHNSON & JOHNSON CONSUMER PRODUCTS, INC.NC.**  
**501 George Street**  
**New Brunswick New Jersey 08903(US)**

(72) Inventor: **Silva, Frank W.**  
**1554 Enchantment Vista**  
**CA 92083(US)**  
Inventor: **Bolliger, Diane K.**  
**10615 Dabney Drive, Apartment 21,**  
**San Diego CA 92126(US)**  
Inventor: **Strahan, Ralph**  
**1826 Lilac Road**  
**Ramona CA 92065(US)**  
Inventor: **Merritt, Michael A.**  
**4535 Sun Valley Road**  
**Del Mar CA 92014(US)**

(74) Representative: **Fisher, Adrian John et al**  
**CARPMAELS & RANSFORD 43 Bloomsbury**  
**Squareare**  
**London WC1A 2RA(GB)**

(54) **Improved dental bracket configuration.**

(57) A generally elliptical dental bracket (10) is disclosed having a hemispherically shaped gingival tie wing (40) and hemispherically shaped occlusal tie wing (50) separated by an archwire slot (30). The bracket is aligned with the crown long axis to that the archwire slot is parallel with the occlusal plane. The overall shape of the bracket creates patient comfort, bracket strength and ease of manufacture.

**EP 0 389 223 A3**



European  
Patent Office

# EUROPEAN SEARCH REPORT

Application Number

EP 90 30 2933

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-4 322 206 (REYNOLDS) * Column 2, lines 3-7; figure 1; claim 1 * - - - -	1-7	A 61 C 7/12
Y	US-A-4 077 126 (PLETCHER) * Column 5, lines 47-54; figure 10 * - - - -	1-7	
A E	US-A-4 917 602 (BROUSSARD) * Figure 1; column 6, lines 42-44 * - - - -	9,10 8,11	
A	AU-B-4 908 21 (LEE) * Page 7, lines 4-16 * - - - -	12	
A	EP-A-0 290 247 (ORMCO) * Figure 1; claim 1 * - - - - -	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A 61 C
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		29 October 90	VLECK J.M.
<div>CATEGORY OF CITED DOCUMENTS</div> <div><div>X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document T: theory or principle underlying the invention</div><div>E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons - - - - - A: member of the same patent family, corresponding document</div></div>			